AMENDMENTS TO THE SPECIFICATION

Amendments to the specification are listed with additions noted by underlined text and deletions marked by text ~~strikethrough~~ or [[double bracketing.]] The amendments to the specified portions of the specification will replace all previous versions of that portion of the specification. No new matter is introduced by way of the amendments to the specification.

Replacement paragraph [0032] on pages 7 – 8

Applicants respectfully request that the specification be amended by replacing paragraph [0032] on page 7 and continuing on page 8 with the following replacement paragraph. The replacement paragraph [0032] provides an updated status for United States Patent Application Serial No. 10/379,273.

[0032] Recent advances in the solution phase dispersion [Strano *et al.*, *J. Nanosci. and Nanotech.*, **2003**, *3*, 81; O'Connell *et al.*, *Science*, **2002**, *297*, 593-596] along with spectroscopic identification using bandgap fluorescence [Bachilo *et al.*, *Science*, **2002**, *298*, 2361; and commonly-assigned United States Patent 7,074,310 ~~Application Serial No. 10/379,273~~] and Raman spectroscopy [Strano, *Nanoletters* **2003**, *3*, 1091] have greatly improved the ability to monitor electrically distinct nanotubes as suspended mixtures and have led to definitive assignments of the optical features of semiconducting [Bachilo *et al.*, *Science*, **2002**, *298*, 2361], as well as metallic and semi-metallic species [Strano, *Nanoletters*, **2003**, *3*, 1091]. Indeed, such spectroscopic assignments can provide a background for the optical bar coding of the present invention.

Replacement paragraph [0034] on page 8

Applicants respectfully request that the specification be amended by replacing paragraph [0034] on page 8 with the following replacement paragraph. The replacement paragraph [0034] provides the publication number for application PCT/US04/24507.

[0034] Techniques of chemically functionalizing CNTs have greatly facilitated the ability to manipulate these materials, particularly for SWNTs which tend to assemble into rope-like aggregates [Thess *et al.*, *Science*, **1996**, *273*, 483-487]. Such chemical functionalization of CNTs is generally divided into two types: tube end functionalization [Chen *et al.*, *Science*, **1998**, *282*, 95-98], and sidewall functionalization [PCT publication WO 02/060812 by Tour *et al.*; Holzinger *et al.*, *Angew.*

Chem. Int. Ed., **2001**, *40*, 4002-4005; Khabashesku *et al.*, *Acc. Chem. Res.*, **2002**, *35*, 1087-1095]. Most recently, SWNTs were shown to be selectively functionalizable, providing a chemical route to their separation. See Strano *et al., Science*, **2003**, *301*, 1519-1522; and commonly-assigned PCT Publication WO 05/012172 ~~International Patent Application No. PCT/US04/24507~~.